

REMARKS

The Office Action mailed April 14, 2004, has been received and reviewed. Claims 1, 4, 5, 8, 9, 11, 12, 15, 21, 72, 74, 75 and 78 are pending. Claim 74 has been canceled without prejudice or disclaimer. Claim 1 stands objected to for formalities. Claims 1, 4, 5, 8, 9, 11, 12, 15, 21, 72, 74, 75 and 78 stand rejected under 35 U.S.C. § 112, first paragraph. Claims 12, 15, 21 and 75 stand rejected under 35 U.S.C. § 112, second paragraph, as assertedly being confusing. Reconsideration is respectfully requested.

Support for the Claim Amendments:

Support for the amendment of claim 1 can be found throughout the specification, for example, in paragraph [0032], which discloses the bioassay and proliferative effect of the claimed peptide, as described in paragraph [0018]. Additionally, the element “at least one string of 12 consecutive amino acids” has been amended to clarify that each string has at least 12 consecutive amino acids. Support for this amendment is provided, for example, in claims 4 and 5, and paragraphs [0014] through [0018], which describe the use of peptide combinations that have different sequences (*e.g.*, compare the sequences in paragraphs 14-16, groups A-C, respectively). In addition, the “proliferative effect” has been clarified to expressly state that antagonistic activity results in a decrease in the growth rate or an inhibition of proliferation as shown in FIGS. 1-3, bars illustrating a negative ratio, *i.e.*, a decreased proliferative effect of the peptides (inhibition of proliferation) relative to the control.

The applicants have merely amended claim 8 to expressly state that the chemical linkage is between peptides. No change in the scope of the claim is intended by the amendment and support for the amendment can be found, for example, in the claim itself. Additional exemplary support for the amendment may be found in paragraph [0019] of the above-referenced application, wherein peptides are described as linked either “head to tail, or head to head, or tail to tail, or via side chains.”

Support for the amendment of claims 12 and 75 can be found throughout the specification, for example, at paragraph [0031], which describes the synthesis of a set (a

plurality) of overlapping peptides used in the analysis of antagonistic and agonist activities. Such a set illustrates “a plurality of dissimilar peptides,” specifically, the set includes multiple peptides, where each peptide in the series differs by one amino acid from the previous peptide and the initial and final peptides of the series may be significantly dissimilar.

Claim 78 has been amended to change the punctuation of the claim, *i.e.*, the colon and semi-colon have been deleted, as suggested by the Examiner.

Objection to the Specification:

The description of Fig. 1 has been amended as suggested by the Examiner. Applicants did not include the term “respectively” in the amendment, since figures 1A, 1B and 1C each show the peptide sequence and the peptide source. Therefore, the applicants are of the opinion that an additional “respectively” term would be inappropriate in this case. Reconsideration and withdrawal of the objection are respectfully requested.

Objection and rejection of Claim 1:

Claim 1 is objected to for informalities. Claim 1 has been amended as suggested to remove the phrase “for determining IL-6 antagonistic activity, and said bioassay” and the parentheses around the SEQ ID NO.

Claim 1 also stands rejected under 35 U.S.C. § 112, first paragraph, as allegedly lacking enablement commensurate with the scope of the claim. Claim 1 has been amended as suggested by the Examiner and now recites the bioassay as determining a proliferative effect in IL-6 dependent B9 cells and to describe the nature of the proliferative effect.

Reconsideration and withdrawal of the objection and rejection are respectfully requested.

Rejection of Claim 21:

Claim 21 stands rejected under 35 U.S.C. § 112, first and second paragraphs. Claim 21 has been amended as suggested by the Examiner to recite culturing mammalian cells, thereby overcoming the rejection under 35 U.S.C. § 112, first paragraph. Claim 21 is further amended as

suggested by the Examiner to overcome the rejection under 35 U.S.C. § 112, second paragraph. Reconsideration and withdrawal of the rejections are respectfully requested.

Rejection of Claims 12, 15 and 75:

Claim 12 stands rejected under 35 U.S.C. § 112, second paragraph, as assertedly being confusing. Claim 12 has been amended to recite “a mixture comprising a plurality of dissimilar isolated, recombinant or purified peptides of claim 1.” Since “a plurality” is the same as “two or more,” the amendment conforms to the suggested language. Thus, the amendment clarifies that the mixture comprises two or more (a plurality) of dissimilar peptides of claim 1. Reconsideration and withdrawal of the rejection are respectfully requested.

Claim 15 stands rejected under 35 U.S.C. § 112, second paragraph, as assertedly being confusing. Claim 15 has been amended as suggested to recite a “composition,” which is the “preparation,” as it was formerly phrased. Reconsideration and withdrawal of the rejection are respectfully requested.

Claim 75 stands rejected under 35 U.S.C. § 112, second paragraph, as assertedly being confusing. Claim 75 has been amended to clearly recite the “plurality of isolated, recombinant or purified peptides of claim 12, together with an inert carrier.” Thus, the amendment makes clear that the composition comprises the two or more peptides of claim 12 with an inert carrier.

Rejection of Claim 74:

Claim 74 stands rejected under 35 U.S.C. § 112, first paragraph, as assertedly lacking enablement commensurate with the scope of the claim. Claim 74 has been canceled without prejudice or disclaimer, thereby mooting the rejection.

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CONCLUSION

Claims 1, 4, 5, 8, 9, 11, 12, 15, 21, 72, 75 and 78 are currently pending and have been amended as suggested by the Examiner. Therefore, the claims should be in condition for allowance. Should questions or concerns remain after entry of the amendments and consideration of the remarks herein, the office is kindly invited to contact the applicants' representative at the number provided herein.

Respectfully submitted,



G. Scott Dorland, Ph.D.
Registration No. 51,622
Attorney for Applicants
TRASKBRITT, P.C.
P.O. Box 2550
Salt Lake City, Utah 84110-2550
Telephone: 801-532-1922

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GSD/gsd/tlb